

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of tracking activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, comprising:

receiving with an electronic receiver a dynamically updated data stream containing level 1 and level 2 data relating to a plurality of securities traded over the at least one exchange, the level 1 data including at least the last trade price, inside bid and inside ask of each security and the level 2 data containing a bid price, a bid time, a bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask volume, an ask time, a security identifier and a market maker identifier for each ask; and

analyzing each data item within the data stream for a set of symbols with an automated computer processor configured to execute logic to transform the data to derive a statistic indicative of activity of an inside market for each of the symbols, the statistic updated to correspond to content of the updated data stream and the statistic ~~selected from at least one of~~ comprising a total number of market makers at the inside market, and a difference between a number of market makers at an inside bid price and a number of market makers at an inside ask price,

wherein the derived statistic is indicative of a temporary imbalance in market maker activity for at least one of the symbols.

2. (Currently Amended) The method according to claim 1, further comprising displaying with a display ~~at least one of the statistics~~ the statistic indicative of activity of the inside market in at least one of a table or a chart for each corresponding symbol.

3. (Currently Amended) The method according to claim 2, further comprising dynamically sorting with the configured processor the at least one of the table or the chart based on a parameter selected by the user to reflect current market activity.

4. (Currently Amended) The method according to claim 1, further comprising filtering the data stream with the configured processor, the filtering including discarding bids having a price lower than the last trade value minus one of a selected threshold percentage of the last trade value or a fixed price away, and discarding asks having a price higher than the last trade value plus one of a selected threshold percentage of the last trade value or a fixed price away.

5. (Original) The method according to claim 4, wherein filtering is conducted for a plurality of selected threshold percentages or fixed prices away, and for each selected threshold percentage or fixed price away a corresponding data set is derived, the statistic being calculated and updated for each symbol for each data set.

6. (Currently Amended) The method according to claim 1, further comprising filtering the data stream with the configured processor for each symbol based on traded volume.

7. (Currently Amended) The method according to claim 1, further comprising filtering the data stream with the configured processor for each symbol based on traded price.

8. (Currently Amended) A method of tracking activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, comprising:

receiving with an electronic receiver a dynamically updated data stream containing level 1 and level 2 data relating to a plurality of securities traded over the at least one exchange, the level 1 data including at least the last trade price, inside bid and inside ask of each security and the level 2 data containing a bid price, a bid time, a bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask volume, an ask time, a security identifier and a market maker identifier for each ask; and

analyzing each data item within the data stream for a set of symbols with an automated computer processor configured to execute logic to transform the data to derive a statistic indicative of volume activity of an inside market for each of the symbols, the statistic updated to correspond to content of the updated data stream and the statistic ~~selected from at least one of~~ comprising a total volume of shares at the inside market, and at least one of a difference between a number of shares at an inside bid price and a number of shares at an inside ask price, or a percent of inside market shares at the inside bid price as compared to a ~~, and~~ percent of inside market shares at the inside ask price,

wherein the derived statistic is indicative of a temporary imbalance in market maker activity for at least one of the symbols.

9. (Currently Amended) The method according to claim 8, further comprising displaying with a display at least one of the statistics indicative of volume activity of the inside market in at least one of a table or a chart for each corresponding symbol.

10. (Currently Amended) The method according to claim 9, further comprising dynamically sorting with the configured processor the at least one of the table or the chart based on a parameter selected by the user to reflect current market activity.

11. (Currently Amended) The method according to claim 8, further comprising filtering the data stream with the configured processor, the filtering including discarding bids having a price lower than the last trade value minus one of a selected threshold percentage of the last trade value or a fixed price away, and discarding asks having a price higher than the last trade value plus one of a selected threshold percentage of the last trade value or a fixed price away.

12. (Original) The method according to claim 11, wherein filtering is conducted for a plurality of selected threshold percentages or fixed prices away, and for each selected threshold percentage or fixed price away a corresponding data set is derived, the statistic being calculated and updated for each symbol for each data set.

13. (Currently Amended) The method according to claim 8, further comprising filtering the data stream with the configured processor for each symbol based on traded volume.

14. (Currently Amended) The method according to claim 8, further comprising filtering the data stream with the configured processor for each symbol based on traded price.

15. (Withdrawn) A method of tracking a plurality of symbols relating to securities traded on at least one common exchange, comprising:

receiving a dynamically updated data stream containing level 1 data relating to the plurality of symbols traded over the at least one exchange, the level 1 data including at least the last trade price of each symbol; and

analyzing the data stream for a set of symbols to derive for each symbol at least one of:

an upward price movement indicator by dividing a count of the number of times the symbol achieves a new intra-session high by an intra-session trading price range, and

a downward price movement indicator by dividing a count of the number of times the symbol achieves a new intra-session low by the intra-session price range.

16. (Withdrawn) The method according to claim 15, wherein at least one of the upward price movement indicator and the downward price movement indicator is updated to correspond to content of the updated data stream.

17. (Withdrawn) The method according to claim 15, further comprising displaying at least one of the upward price movement indicator and the downward price movement indicator in at least one of a table or a chart for each corresponding symbol.

18. (Withdrawn) The method according to claim 17, further comprising dynamically sorting the at least one of the table or the chart based on a parameter selected by the user to reflect current market activity.

19. (Withdrawn) The method according to claim 15, further comprising filtering the data stream for each symbol based on traded volume.

20. (Withdrawn) The method according to claim 15, further comprising filtering the data stream for each symbol based on traded price.

21. (Withdrawn) The method according to claim 15, further comprising waiting a specified period of time after the beginning of the session to commence the analyzing.

22. (Withdrawn) A method of tracking a plurality of symbols relating to securities traded on at least one common exchange, comprising:

receiving a dynamically updated data stream containing level 1 data relating to the plurality of symbols traded over the at least one exchange, the level 1 data including at least the last trade price of each symbol; and

analyzing the data stream for a set of symbols to derive for each symbol at least one of:

a high opening balance range extension by subtracting a high trade price established during an opening balance delay interval from a current high trade price, and

a low opening balance range extension by subtracting a current low trade price from a low trade price established during the opening balance delay interval.

23. (Withdrawn) The method according to claim 22, wherein at least one of the high opening balance range extension and the low opening balance range extension is updated to correspond to content of the updated data stream.

24. (Withdrawn) The method according to claim 22, further comprising displaying at least one of the high opening balance range extension and the low opening balance range extension in at least one of a table or a chart for each corresponding symbol.

25. (Withdrawn) The method according to claim 24, further comprising dynamically sorting the at least one of the table or the chart based on a parameter selected by the user to reflect current market activity.

26. (Withdrawn) The method according to claim 22, further comprising filtering the data stream for each symbol based on traded volume.

27. (Withdrawn) The method according to claim 22, further comprising filtering the data stream for each symbol based on traded price.

28. (Withdrawn) The method according to claim 22, further comprising waiting a specified period of time after the beginning of the session to commence the analyzing.

29. (Withdrawn) The method according to claim 22, further comprising deriving for each symbol at least one of:

- a high opening balance range extension percentage by dividing the corresponding high opening balance range extension value by a current trading session price range, and
- a low opening balance range extension percentage by dividing the corresponding low opening balance range extension value by the current trading session price range.

30. (Withdrawn) The method according to claim 29, wherein at least one of the high opening balance range extension percentage and the low opening balance range extension percentage is updated to correspond to content of the updated data stream.

31. (Withdrawn) The method according to claim 29, further comprising displaying at least one of the high opening balance range extension percentage and the low opening balance range extension percentage in at least one of a table or a chart for each corresponding symbol.

32. (Withdrawn) The method according to claim 31, further comprising dynamically sorting the at least one of the table or the chart based on a parameter selected by the user to reflect current market activity.

33. (Withdrawn) The method according to claim 29, further comprising filtering the data stream for each symbol based on traded volume.

34. (Withdrawn) The method according to claim 29, further comprising filtering the data stream for each symbol based on traded price.

35. (Withdrawn) The method according to claim 29, further comprising waiting a specified period of time after the beginning of the session to commence the analyzing.

36. (Withdrawn) A method of tracking a plurality of symbols relating to securities traded on at least one common exchange, comprising:

receiving a dynamically updated data stream containing level 1 data relating to the plurality of symbols traded over the at least one exchange, the level 1 data including at least the last trade price of each symbol; and

tracking on a symbol by symbol basis for a set of symbols a statistic selected from at least one of:

a difference between a number of trades for a first time period and a number of trades for a second time period,

a difference between a total volume of shares traded for the first time period and a total volume of shares traded for the second time period,

an average volume of shares per trade for the first time period;
an average volume of shares per trade for the second time period;
and
a difference between the average volume of shares per trade for
the first time period and the average volume of shares per trade for the
second time period.

37. (Withdrawn) The method according to claim 36, further comprising displaying at least one of the tracked statistics in at least one of a table or a chart for each corresponding symbol.

38. (Withdrawn) The method according to claim 36, further comprising for at least one of the tracked statistics calculating an average of the tracked statistic per unit of time over the respective time periods.

39. (Withdrawn) The method according to claim 36, wherein the first and the second time periods are from the current trading session.

40. (Withdrawn) The method according to claim 36, wherein the first time period is from the current trading session and the second time period is selected from one of a previous trading session and an average of multiple trading sessions.

41. (Withdrawn) The method according to claim 36, wherein the tracked statistics are updated based on contents of the data stream at regular intervals.

42. (Withdrawn) The method according to claim 41, wherein each interval corresponds to a unit of time and, after each interval elapses, the tracked statistics are updated based on data from the most recent intervals that in total corresponds respectively to a length of the first time period and a length of the second time period.

43. (Withdrawn) The method according to claim 36, wherein the tracked statistics are updated as a moving average.

44. (Withdrawn) The method according to claim 36, further comprising displaying for each corresponding symbol in at least one of a table or a chart at least one of:

a difference between an average of the number of trades per unit time for the first time period and an average of the number of trades per unit time for the second time period, and

a difference between an average of the volume of shares traded per unit time for the first time period and an average of the volume of shares traded per unit time for the second time period.

45. (Currently Amended) A method of tracking a plurality of symbols and activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, comprising:

receiving with an electronic receiver a dynamically updated data stream containing level 2 data relating to a plurality of securities traded over the at least one exchange, the level 2 data containing a bid price, a bid time, a bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask volume, an ask time, a security identifier and a market maker identifier for each ask; and

tracking each data item within the data stream on a symbol by symbol basis for a set of symbols with an automated computer processor configured to execute logic and transform the data to derive at least one statistic selected from a number of bids at a first time period as compared to a number of bids at a second time period, a number of asks at the first time period as compared to the number of asks at the second time period, a bid volume of shares at the first time period as compared to a bid volume of shares at the second time period, an ask volume of shares at the first time period as compared to an ask volume of shares at the second time period, a volume of shares per bid at the first time period as compared to a volume of shares per bid at the second time period, and or a volume of shares per ask at the first time period as compared to a

volume of shares per ask at the second time period, for each of a first time period and a second time period

wherein a relationship of the tracked statistic for the first and second time periods is indicative of a temporary imbalance in market maker activity for at least one of the symbols.

46. (Currently Amended) The method according to claim 45, further comprising displaying with a display at least one of the tracked statistics in at least one of a table or a chart for each corresponding symbol.

47. (Currently Amended) The method according to claim 45, further comprising for at least one of the tracked statistics calculating with the configured processor an average of the tracked statistic per unit of time over the respective time periods.

48. (Original) The method according to claim 45, wherein the first and the second time periods are from the current trading session.

49. (Currently Amended) The method according to claim 45, wherein the first time period is from the current trading session and the second time period is selected from one of a previous trading session ~~and~~ or an average of multiple trading sessions.

50. (Original) The method according to claim 45, wherein the tracked statistics are updated based on contents of the data stream at regular intervals.

51. (Original) The method according to claim 50, wherein each interval corresponds to a unit of time and, after each interval elapses, the tracked statistics are updated based on data from the most recent intervals that in total corresponds respectively to a length of the first time period and a length of the second time period.

52. (Original) The method according to claim 45, wherein the tracked statistics are updated as a moving average.

53. (Currently Amended) The method according to claim 45, further comprising displaying with a display for each corresponding symbol in at least one of a table or a chart at least one of a difference between the number of bids for the first time period and the number of bids for the second time period, ~~and~~ or a difference between the number of asks for the first time period and the number of asks for the second time period.

54. (Currently Amended) The method according to claim 45, further comprising displaying with a display for each corresponding symbol in at least one of a table or a chart at least one of a difference between the bid volume for the first time period and the bid volume for the second period, ~~and~~ or a difference between the ask volume for the first time period and the ask volume for the second time period.

55. (Currently Amended) The method according to claim 45, further comprising displaying with a display for each corresponding symbol in at least one of a table or a chart at least one of a difference between the volume per bid for the first time period and the volume per bid for the second time period, ~~and~~ or a difference between the volume per ask for the first time period and the volume per ask for the second time period.

56. (Currently Amended) The method according to claim 45, further comprising displaying with a display for each corresponding symbol in at least one of a table or a chart at least one of a difference between an average number of bids per unit of time for the first time period and an average number of bids per unit of time for the second time period, ~~and~~ or a difference between an average number of asks per unit of time for the first time period and an average number of asks per unit of time for the second time period.

57. (Currently Amended) The method according to claim 45, further comprising displaying with a display for each corresponding symbol in at least one of a table or a chart at least one of a difference between an average of the bid volume per unit of time for the first time period and an average of the bid volume per unit of time for the second time period, ~~and~~ or a difference between an average of the ask volume per unit of time for the first time period and an average of the ask volume per unit of time for the second time period.

58. (Currently Amended) A method of tracking a plurality of symbols and activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, comprising:

receiving with an electronic receiver a dynamically updated data stream containing level 2 data relating to a plurality of securities traded over the at least one exchange, the level 2 data containing a bid price, a bid time, a bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask volume, an ask time, a security identifier and a market maker identifier for each ask; and

for a selected market maker, tracking each data item within the data stream on a symbol by symbol basis for a set of symbols with an automated computer processor configured to execute logic and transform the data to derive at least one statistic selected from a number of bids at a first time period as compared to a number of bids at a second time period, a number of asks at the first time period as compared to the number of asks at the second time period, a bid volume of shares at the first time period as compared to a bid volume of shares at the second time period, an ask volume of shares at the first time period as compared to an ask volume of shares at the second time period, a volume of shares per bid at the first time period as compared to a volume of shares per bid at the second time period, ~~and~~ or a volume of shares per ask at the first time period as compared to a volume of shares per ask at the second time period, ~~for each of a first time period and a second time period~~

wherein a relationship of the tracked statistic for the first and second time periods is indicative of a temporary imbalance in market maker activity for at least one of the symbols.

59. (Currently Amended) The method according to claim 58, further comprising displaying with a display at least one of the tracked statistics in at least one of a table or a chart for each corresponding symbol.

60. (Currently Amended) The method according to claim 58, further comprising for at least one of the tracked statistics calculating with the configured processor an average of the tracked statistic per unit of time over the respective time periods.

61. (Original) The method according to claim 58, wherein the first and the second time periods are from the current trading session.

62. (Currently Amended) The method according to claim 58, wherein the first time period is from the current trading session and the second time period is selected from one of a previous trading session ~~and~~ or an average of multiple trading sessions.

63. (Original) The method according to claim 58, wherein the tracked statistics are updated based on contents of the data stream at regular intervals.

64. (Original) The method according to claim 63, wherein each interval corresponds to a unit of time and, after each interval elapses, the tracked statistics are updated based on data from the most recent intervals that in total corresponds respectively to a length of the first time period and a length of the second time period.

65. (Original) The method according to claim 58, wherein the tracked statistics are updated as a moving average.

66. (Currently Amended) The method according to claim 58, further comprising displaying with a display for each corresponding symbol in at least one of a table or a chart at least one of a difference between the number of bids for the first time

period and the number of bids for the second time period, ~~and~~ or a difference between the number of asks for the first time period and the number of asks for the second time period.

67. (Currently Amended) The method according to claim 58, further comprising displaying with a display for each corresponding symbol in at least one of a table or a chart at least one of a difference between the bid volume for the first time period and the bid volume for the second period, ~~and~~ or a difference between the ask volume for the first time period and the ask volume for the second time period.

68. (Currently Amended) The method according to claim 58, further comprising displaying with a display for each corresponding symbol in at least one of a table or a chart at least one of a difference between the volume per bid for the first time period and the volume per bid for the second time period, ~~and~~ or a difference between the volume per ask for the first time period and the volume per ask for the second time period.

69. (Currently Amended) The method according to claim 58, further comprising displaying with a display for each corresponding symbol in at least one of a table or a chart at least one of a difference between an average number of bids per unit of time for the first time period and an average number of bids per unit of time for the second time period, and a difference between an average number of asks per unit time for the first time period and an average number of asks per unit of time for the second time period.

70. (Currently Amended) The method according to claim 58, further comprising displaying with a display for each corresponding symbol in at least one of a table or a chart at least one of a difference between an average of the bid volume per unit of time for the first time period and an average of the bid volume per unit of time for the second time period, ~~and~~ or a difference between an average of the ask volume per

unit of time for the first time period and an average of the ask volume per unit of time for the second time period.

71. (Currently Amended) The method according to claim 58, further comprising:

for a second market maker and on a symbol by symbol basis, tracking with the configured processor the at least one statistic selected from a number of bids at a first time period as compared to a number of bids at a second time period, a number of asks at the first time period as compared to the number of asks at the second time period, a bid volume of shares at the first time period as compared to a bid volume of shares at the second time period, an ask volume of shares at the first time period as compared to an ask volume of shares at the second time period, a volume of shares per bid at the first time period as compared to a volume of shares per bid at the second time period, and or a volume of shares per ask at the first time period as compared to a volume of shares per ask at the second time period; ~~for each of a first time period and a second time period~~
and

comparing the at least one statistic for the selected market maker and the at least one statistic for the second marker maker.

72. (Currently Amended) A method of tracking activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, comprising:

receiving with an electronic receiver a dynamically updated data stream containing level 1 and level 2 data relating to a plurality of securities traded over the at least one exchange, the level 1 data including at least the last trade price, inside bid and inside ask of each security and the level 2 data containing a bid price, a bid time, a bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask volume, an ask time, a security identifier and a market maker identifier for each ask; and

for each symbol and market maker pair from a set of symbols and a set of market makers, analyzing each data item within the data stream and transform the data to derive a statistic comprising counting with an automated computer processor configured to execute logic at least one of a number of times that a bid having an inside bid price is placed, ~~and~~ or a number of times that an ask having an inside ask price is placed, wherein the derived statistic is indicative of a temporary imbalance in market maker activity for at least one of the symbols.

73. (Currently Amended) The method according to claim 72, further comprising displaying with a display at least one of the count of bids having the inside bid price ~~and~~ or the count of the asks having the inside ask price in at least one of a table or a chart for each corresponding symbol.

74. (Currently Amended) The method according to claim 73, further comprising dynamically sorting with the configured processor the at least one of the table or the chart based on a parameter selected by the user to reflect current market activity.

75. (Currently Amended) The method according to claim 72, further comprising filtering the data stream with the configured processor for each symbol based on traded volume.

76. (Currently Amended) The method according to claim 72, further comprising filtering the data stream with the configured processor for each symbol based on traded price.

77. (Currently Amended) A method of tracking activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, comprising:

receiving with an electronic receiver a dynamically updated data stream containing level 1 and level 2 data relating to a plurality of securities traded over the at

least one exchange, the level 1 data including at least the last trade price, inside bid and inside ask of each security and the level 2 data containing a bid price, a bid time, a bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask volume, an ask time, a security identifier and a market maker identifier for each ask; and

for each symbol and market maker pair from a set of symbols and a set of market makers, analyzing each data item within the data stream and transform the data to derive a statistic comprising counting with an automated computer processor configured to execute logic at least one of:

a number of times the market maker is a first market maker to post an inside bid that is higher than an immediately preceding inside bid for the symbol, ~~and~~ or

a number of times the market maker is a first market maker to post an inside ask that is lower than an immediately preceding inside ask for the symbol,

wherein the derived statistic is indicative of a temporary imbalance in market maker activity for at least one of the symbols.

78. (Currently Amended) The method according to claim 77, further comprising for each symbol and market maker pair counting with the configured processor at least one of:

a number of times that a bid having an inside bid price is placed, ~~and~~ or

a number of times that an ask having an inside ask price is placed.

79. (Currently Amended) The method according to claim 77, further comprising for each symbol and market maker pair counting with the configured processor at least one of:

a number of times the market maker is a last market maker to leave an inside bid price for the symbol other than by market movement to a higher inside bid price, ~~and~~ or

a number of times the market maker is a last market maker to leave an inside ask price for the symbol other than by market movement to a lower inside ask price.

80. (Currently Amended) The method according to claim 79, further comprising for each symbol and market maker pair totaling with the configured processor at least one of:

the counted number of times the market maker is the first market maker to post an inside bid that is higher than an immediately preceding inside bid and the counted number of times the market maker is the last market maker to leave an inside bid price, ~~and~~ or

the counted number of times the market maker is the first market maker to post an inside ask that is lower than an immediately preceding inside ask and the counted number of times the market maker is the last market maker to leave an inside ask price.

81. (Currently Amended) The method according to claim 77, further comprising displaying with a display at least one of the counts in at least one of a table or a chart for each corresponding symbol and market maker pair.

82. (Currently Amended) The method according to claim 81, further comprising dynamically sorting with the configured processor the at least one of the table or the chart based on a parameter selected by the user to reflect current market activity.

83. (Currently Amended) The method according to claim 77, further comprising filtering the data stream with the configured processor for each symbol based on traded volume.

84. (Currently Amended) The method according to claim 77, further comprising filtering the data stream with the configured processor for each symbol based on traded price.

85. (Withdrawn) A method of tracking activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, comprising:

receiving a dynamically updated data stream containing level 1 and level 2 data relating to a plurality of securities traded over the at least one exchange, the level 1 data including at least the last trade price of each security and the level 2 data containing a bid price, a bid time, a bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask volume, an ask time, a security identifier and a market maker identifier for each ask; and

for each symbol and market maker pair from a set of symbols and a set of market makers, generating at least one of a bid persistence statistic by approximating a percentage of a predetermined number trades for which the market maker had an inside bid price, and an ask persistence statistic by approximating a percentage of a predetermined number of trades for which the market maker has an inside ask price.

86. (Withdrawn) The method according to claim 85, further comprising displaying at least one of the bid persistence statistic and the ask persistence statistic in at least one of a table or a chart for each corresponding symbol and market maker pair.

87. (Withdrawn) The method according to claim 86, further comprising dynamically sorting the at least one of the table or the chart based on a parameter selected by the user to reflect current market activity.

88. (Withdrawn) The method according to claim 85, further comprising filtering the data stream for each symbol based on traded volume.

89. (Withdrawn) The method according to claim 85, further comprising filtering the data stream for each symbol based on traded price.

90. (Withdrawn) The method according to claim 85, wherein the bid persistence statistic and the ask persistence statistic are respectively calculated by:
assigning a value of one to each order at the inside market, otherwise assigning a value of zero to the order; and
separately solving the equation:

$$\left(\Sigma VAL_p + \frac{CV - \Sigma VAL_p}{m} \right)$$

for bid orders and ask orders, wherein m is the predetermined number of trades, CV is the current value assigned to the order and ΣVAL_p is the prior sum of all values calculated according to the equation one trade earlier.

91. (Withdrawn) The method according to claim 90, further comprising multiplying the respective bid order and ask order results of the equation by one hundred to arrive at respective representations of exponential averages.

92. (Withdrawn) The method according to claim 85, wherein the bid persistence statistic and the ask persistence statistic are respectively calculated as one of a simple moving average, an exponential moving average, a weighted moving average, a linear regression, or mathematical averaging technique.

93. (Currently Amended) A program embodied in a tangible computer readable medium that is executed by a computing device to track activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, comprising:

code that receives a dynamically updated data stream containing level 1 and level 2 data relating to a plurality of securities traded over the at least one exchange, the level 1 data including at least the last trade price, inside bid and inside ask of each

security and the level 2 data containing a bid price, a bid time, a bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask volume, an ask time, a security identifier and a market maker identifier for each ask; and

code that analyzes each data item within the data stream for a set of symbols and transforms the data to derive a statistic indicative of activity of an inside market for each of the symbols and update the statistic to correspond to content of the updated data stream, the statistic ~~selected from at least one of~~ comprising a total number of market makers at the inside market, and a difference between a number of market makers at an inside bid price and a number of market makers at an inside ask price, wherein the derived statistic is indicative of a temporary imbalance in market maker activity for at least one of the symbols.

94. (Currently Amended) The program according to claim 93, further comprising code that displays ~~at least one of the statistics~~ the statistic indicative of activity of the inside market in at least one of a table or a chart for each corresponding symbol.

95. (Original) The program according to claim 94, further comprising code that dynamically sorts the at least one of the table or the chart based on a parameter selected by the user to reflect current market activity.

96. (Original) The program according to claim 93, further comprising code that filters the data stream by discarding bids having a price lower than the last trade value minus one of a selected threshold percentage of the last trade value or a fixed price away, and discarding asks having a price higher than the last trade value plus one of a selected threshold percentage of the last trade value or a fixed price away.

97. (Original) The program according to claim 96, wherein the filtering code filters for a plurality of selected threshold percentages or fixed prices away, and for each selected threshold percentage or fixed price away a corresponding data set is derived, the statistic being calculated and updated for each symbol for each data set.

98. (Original) The program according to claim 93, further comprising code that filters the data stream for each symbol based on traded volume.

99. (Original) The program according to claim 93, further comprising code that filters the data stream for each symbol based on traded price.

100. (Currently Amended) A program embodied in a tangible computer readable medium that is executed by a computing device to track activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, comprising:

code that receives a dynamically updated data stream containing level 1 and level 2 data relating to a plurality of securities traded over the at least one exchange, the level 1 data including at least the last trade price, inside bid and inside ask of each security and the level 2 data containing a bid price, a bid time, a bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask volume, an ask time, a security identifier and a market maker identifier for each ask; and

code that analyzes each data item within the data stream for a set of symbols and transforms the data to derive a statistic indicative of volume activity of an inside market for each of the symbols and that updates statistic to correspond to content of the updated data stream, the statistic ~~selected from at least one of~~ comprising a total volume of shares at the inside market, and at least one of a difference between a number of shares at an inside bid price and a number of shares at an inside ask price, or a percent of inside market shares at the inside bid price as compared to a, ~~and~~ percent of inside market shares at the inside ask price,

wherein the derived statistic is indicative of a temporary imbalance in market maker activity for at least one of the symbols.

101. (Original) The program according to claim 100, further comprising code that displays at least one of the statistics indicative of volume activity of the inside market in at least one of a table or a chart for each corresponding symbol.

102. (Original) The program according to claim 101, further comprising code that dynamically sorts the at least one of the table or the chart based on a parameter selected by the user to reflect current market activity.

103. (Original) The program according to claim 100, further comprising code that filters the data stream by discarding bids having a price lower than the last trade value minus one of a selected threshold percentage of the last trade value or a fixed price away, and discarding asks having a price higher than the last trade value plus one of a selected threshold percentage of the last trade value or a fixed price away.

104. (Original) The program according to claim 103, wherein the filtering code filters for a plurality of selected threshold percentages or fixed prices away, and for each selected threshold percentage or fixed price away a corresponding data set is derived, the statistic being calculated and updated for each symbol for each data set.

105. (Original) The program according to claim 100, further comprising code that filters the data stream for each symbol based on traded volume.

106. (Original) The program according to claim 100, further comprising code that filters the data stream for each symbol based on traded price.

107. (Withdrawn) A program embodied in computer readable medium to track a plurality of symbols relating to securities traded on at least one common exchange, comprising:

code that receives a dynamically updated data stream containing level 1 data relating to the plurality of symbols traded over the at least one exchange, the level 1 data including at least the last trade price of each symbol; and

code that analyzes the data stream for a set of symbols to derive for each symbol at least one of:

an upward price movement indicator by dividing a count of the number of times the symbol achieves a new intra-session high by an intra-session trading price range, and

a downward price movement indicator by dividing a count of the number of times the symbol achieves a new intra-session low by the intra-session price range.

108. (Withdrawn) The program according to claim 107, further comprising code that updates at least one of the upward price movement indicator and the downward price movement indicator to correspond to content of the updated data stream.

109. (Withdrawn) The program according to claim 107, further comprising code that displays at least one of the upward price movement indicator and the downward price movement indicator in at least one of a table or a chart for each corresponding symbol.

110. (Withdrawn) The program according to claim 109, further comprising code that dynamically sorts the at least one of the table or the chart based on a parameter selected by the user to reflect current market activity.

111. (Withdrawn) The program according to claim 107, further comprising code that filters the data stream for each symbol based on traded volume.

112. (Withdrawn) The program according to claim 107, further comprising code that filters the data stream for each symbol based on traded price.

113. (Withdrawn) The program according to claim 107, where the analyzing code is programmed to wait a specified period of time after the beginning of the session to commence the analyzing.

114. (Withdrawn) A program embodied in computer readable medium to track a plurality of symbols relating to securities traded on at least one common exchange, comprising:

code that receives a dynamically updated data stream containing level 1 data relating to the plurality of symbols traded over the at least one exchange, the level 1 data including at least the last trade price of each symbol; and

code that analyzes the data stream for a set of symbols to derive for each symbol at least one of:

a high opening balance range extension by subtracting a high trade price established during an opening balance delay interval from a current high trade price, and

a low opening balance range extension by subtracting a current low trade price from a low trade price established during the opening balance delay interval.

115. (Withdrawn) The program according to claim 114, further comprising code that updates at least one of the high opening balance range extension and the low opening balance range extension to correspond to content of the updated data stream.

116. (Withdrawn) The program according to claim 114, further comprising code that displays at least one of the high opening balance range extension and the low opening balance range extension in at least one of a table or a chart for each corresponding symbol.

117. (Withdrawn) The program according to claim 116, further comprising code that dynamically sorts the at least one of the table or the chart based on a parameter selected by the user to reflect current market activity.

118. (Withdrawn) The program according to claim 114, further comprising code that filters the data stream for each symbol based on traded volume.

119. (Withdrawn) The program according to claim 114, further comprising code that filters the data stream for each symbol based on traded price.

120. (Withdrawn) The program according to claim 114, where the analyzing code is programmed to wait a specified period of time after the beginning of the session to commence the analyzing.

121. (Withdrawn) The program according to claim 114, further comprising code that derives for each symbol at least one of:

a high opening balance range extension percentage by dividing the corresponding high opening balance range extension value by a current trading session price range, and

a low opening balance range extension percentage by dividing the corresponding low opening balance range extension value by the current trading session price range.

122. (Withdrawn) The program according to claim 121, further comprising code that updates at least one of the high opening balance range extension percentage and the low opening balance range extension percentage to correspond to content of the updated data stream.

123. (Withdrawn) The program according to claim 121, further comprising code that displays at least one of the high opening balance range extension percentage and the low opening balance range extension percentage in at least one of a table or a chart for each corresponding symbol.

124. (Withdrawn) The program according to claim 123, further comprising code that dynamically sorts the at least one of the table or the chart based on a parameter selected by the user to reflect current market activity.

125. (Withdrawn) The program according to claim 121, further comprising code that filters the data stream for each symbol based on traded volume.

126. (Withdrawn) The program according to claim 121, further comprising code that filters the data stream for each symbol based on traded price.

127. (Withdrawn) The program according to claim 121, where the analyzing code is programmed to wait a specified period of time after the beginning of the session to commence the analyzing.

128. (Withdrawn) A program embodied in computer readable medium to track a plurality of symbols relating to securities traded on at least one common exchange, comprising:

code that receives a dynamically updated data stream containing level 1 data relating to the plurality of symbols traded over the at least one exchange, the level 1 data including at least the last trade price of each symbol; and

code that tracks on a symbol by symbol basis for a set of symbols a statistic selected from at least one of:

a difference between a number of trades for a first time period and a number of trades for a second time period,

a difference between a total volume of shares traded for the first time period and a total volume of shares traded for the second time period,

an average volume of shares per trade for the first time period;

an average volume of shares per trade for the second time period;

and

a difference between the average volume of shares per trade for the first time period and the average volume of shares per trade for the second time period.

129. (Withdrawn) The program according to claim 128, further comprising code that displays at least one of the tracked statistics in a at least one of the table or the chart for each corresponding symbol.

130. (Withdrawn) The program according to claim 128, further comprising code that for at least one of the tracked statistics calculates an average of the tracked statistic per unit of time over the respective time periods.

131. (Withdrawn) The program according to claim 128, wherein the first and the second time periods are from the current trading session.

132. (Withdrawn) The program according to claim 128, wherein the first time period is from the current trading session and the second time period is selected from one of a previous trading session and an average of multiple trading sessions.

133. (Withdrawn) The program according to claim 128, further comprising code that updates the tracked statistics based on contents of the data stream at regular intervals.

134. (Withdrawn) The program according to claim 133, wherein each interval corresponds to a unit of time and, after each interval elapses, the tracked statistics are updated based on data from the most recent intervals that in total corresponds respectively to a length of the first time period and a length of the second time period.

135. (Withdrawn) The program according to claim 128, wherein the tracked statistics are updated as a moving average.

136. (Withdrawn) The program according to claim 128, further comprising code that displays for each corresponding symbol in at least one of a table or a chart at least one of:

a difference between an average of the number of trades per unit time for the first time period and an average of the number of trades per unit time for the second time period, and

a difference between an average of the volume traded per unit time for the first time period and an average of the volume traded per unit time for the second time period.

137. (Currently Amended) A program embodied in a tangible computer readable medium that is executed by a computing device to track a plurality of symbols and activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, comprising:

code that receives a dynamically updated data stream containing level 2 data relating to a plurality of securities traded over the at least one exchange, the level 2 data containing a bid price, a bid time, a bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask volume, an ask time, a security identifier and a market maker identifier for each ask; and

code that tracks each data item within the data stream on a symbol by symbol basis for a set of symbols and transforms the data to derive at least one statistic selected from a number of bids at a first time period as compared to a number of bids at a second time period, a number of asks at the first time period as compared to the number of asks at the second time period, a bid volume of shares at the first time period as compared to a bid volume of shares at the second time period, an ask volume of shares at the first time period as compared to an ask volume of shares at the second time period, a volume of shares per bid at the first time period as compared to a volume of shares per bid at the second time period, ~~and or~~ a volume of shares per ask at the first time period as compared to a volume of shares per ask at the second time period, ~~for each of a first time period and a second time period~~

wherein a relationship of the tracked statistic for the first and second time periods is indicative of a temporary imbalance in market maker activity for at least one of the symbols.

138. (Original) The program according to claim 137, further comprising code that displays at least one of the tracked statistics in at least one of a table or a chart for each corresponding symbol.

139. (Original) The program according to claim 137, further comprising code that for at least one of the tracked statistics calculates an average of the tracked statistic per unit of time over the respective time periods.

140. (Original) The program according to claim 137, wherein the first and the second time periods are from the current trading session.

141. (Original) The program according to claim 137, wherein the first time period is from the current trading session and the second time period is selected from one of a previous trading session and an average of multiple trading sessions.

142. (Original) The program according to claim 137, further comprising code that updates the tracked statistics based on contents of the data stream at regular intervals.

143. (Original) The program according to claim 142, wherein each interval corresponds to a unit of time and, after each interval elapses, the tracked statistics are updated based on data from the most recent intervals that in total corresponds respectively to a length of the first time period and a length of the second time period.

144. (Original) The program according to claim 137, wherein the tracked statistics are updated as a moving average.

145. (Currently Amended) The program according to claim 137, further comprising code that displays for each corresponding symbol in at least one of a table or a chart at least one of a difference between the number of bids for the first time period and the number of bids for the second time period, ~~and~~ or a difference between

the number of asks for the first time period and the number of asks for the second time period.

146. (Currently Amended) The program according to claim 137, further comprising code that displays for each corresponding symbol in at least one of a table or a chart at least one of a difference between the bid volume for the first time period and the bid volume for the second period, ~~and~~ or a difference between the ask volume for the first time period and the ask volume for the second time period.

147. (Currently Amended) The program according to claim 137, further comprising code that displays for each corresponding symbol in at least one of a table or a chart at least one of a difference between the volume per bid for the first time period and the volume per bid for the second time period, ~~and~~ or a difference between the volume per ask for the first time period and the volume per ask for the second time period.

148. (Currently Amended) The program according to claim 137, further comprising code that displays for each corresponding symbol in at least one of a table or a chart at least one of a difference between an average number of bids per unit of time for the first time period and an average number of bids per unit of time for the second time period, ~~and~~ or a difference between an average number of asks per unit time for the first time period and an average number of asks per unit of time for the second time period.

149. (Currently Amended) The program according to claim 137, further comprising code that displays for each corresponding symbol in at least one of a table or a chart at least one of a difference between an average of the bid volume per unit of time for the first time period and an average of the bid volume per unit of time for the second time period, ~~and~~ or a difference between an average of the ask volume per unit of time for the first time period and an average of the ask volume per unit of time for the second time period.

150. (Currently Amended) A program embodied in a tangible computer readable medium that is executed by a computing device to track a plurality of symbols and activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, comprising:

code that receives a dynamically updated data stream containing level 2 data relating to a plurality of securities traded over the at least one exchange, the level 2 data containing a bid price, a bid time, a bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask volume, an ask time, a security identifier and a market maker identifier for each ask; and

code that tracks each data item within the data stream for a selected market maker on a symbol by symbol basis for a set of symbols and transforms the data to derive at least one statistic selected from a number of bids at a first time period as compared to a number of bids at a second time period, a number of asks at the first time period as compared to the number of asks at the second time period, a bid volume of shares at the first time period as compared to a bid volume of shares at the second time period, an ask volume of shares at the first time period as compared to an ask volume of shares at the second time period, a volume of shares per bid at the first time period as compared to a volume of shares per bid at the second time period, and or a volume of shares per ask at the first time period as compared to a volume of shares per ask at the second time period, ~~for each of a first time period and a second time period~~ wherein a relationship of the tracked statistic for the first and second time periods is indicative of a temporary imbalance in market maker activity for at least one of the symbols.

151. (Original) The program according to claim 150, further comprising code that displays at least one of the tracked statistics in at least one of a table or a chart for each corresponding symbol.

152. (Original) The program according to claim 150, further comprising code that calculates for at least one of the tracked statistics an average of the tracked statistic per unit of time over the respective time periods.

153. (Original) The program according to claim 150, wherein the first and the second time periods are from the current trading session.

154. (Original) The program according to claim 150, wherein the first time period is from the current trading session and the second time period is selected from one of a previous trading session and an average of multiple trading sessions.

155. (Original) The program according to claim 150, further comprising code that updates the tracked statistics based on contents of the data stream at regular intervals.

156. (Original) The program according to claim 155, wherein each interval corresponds to a unit of time and, after each interval elapses, the tracked statistics are updated based on data from the most recent intervals that in total corresponds respectively to a length of the first time period and a length of the second time period.

157. (Original) The program according to claim 150, wherein the tracked statistics are updated as a moving average.

158. (Currently Amended) The program according to claim 150, further comprising code that displays for each corresponding symbol in at least one of a table or a chart at least one of a difference between the number of bids for the first time period and the number of bids for the second time period, ~~and~~ or a difference between the number of asks for the first time period and the number of asks for the second time period.

159. (Currently Amended) The program according to claim 150, further comprising code that displays for each corresponding symbol in at least one of a table or a chart at least one of a difference between the bid volume for the first time period and the bid volume for the second period, ~~and~~ or a difference between the ask volume for the first time period and the ask volume for the second time period.

160. (Currently Amended) The program according to claim 150, further comprising code that displays for each corresponding symbol in at least one of a table or a chart at least one of a difference between the volume per bid for the first time period and the volume per bid for the second time period, ~~and~~ or a difference between the volume per ask for the first time period and the volume per ask for the second time period.

161. (Currently Amended) The program according to claim 150, further comprising code that displays for each corresponding symbol in at least one of a table or a chart at least one of a difference between an average number of bids per unit of time for the first time period and an average number of bids per unit of time for the second time period, ~~and~~ or a difference between an average number of asks per unit time for the first time period and an average number of asks per unit of time for the second time period.

162. (Currently Amended) The program according to claim 150, further comprising code that displays for each corresponding symbol in a table at least one of a difference between an average of the bid volume per unit of time for the first time period and an average of the bid volume per unit of time for the second time period, ~~and~~ or a difference between an average of the ask volume per unit of time for the first time period and an average of the ask volume per unit of time for the second time period.

163. (Original) The program according to claim 150, further comprising:
code that tracks for a second market maker and on a symbol by symbol basis the at least one statistic selected from a number of bids at a first time period as compared

to a number of bids at a second time period, a number of asks at the first time period as compared to the number of asks at the second time period, a bid volume of shares at the first time period as compared to a bid volume of shares at the second time period, an ask volume of shares at the first time period as compared to an ask volume of shares at the second time period, a volume of shares per bid at the first time period as compared to a volume of shares per bid at the second time period, and or a volume of shares per ask at the first time period as compared to a volume of shares per ask at the second time period; for each of a first time period and a second time period
and

code that compares the at least one statistic for the selected market maker and the at least one statistic for the second marker maker.

164. (Currently Amended) A program embodied in a tangible computer readable medium that is executed by a computing device to track activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, comprising:

code that receives a dynamically updated data stream containing level 1 and level 2 data relating to a plurality of securities traded over the at least one exchange, the level 1 data including at least the last trade price, inside bid and inside ask of each security and the level 2 data containing a bid price, a bid time, a bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask volume, an ask time, a security identifier and a market maker identifier for each ask; and

code that, for each symbol and market maker pair from a set of symbols and a set of market makers, analyzes each data item within the data stream and transforms the data to derive a statistic comprising counting counts at least one of a number of times that a bid having an inside bid price is placed, ~~and~~ or a number of times that an ask having an inside ask price is placed.

wherein the derived statistic is indicative of a temporary imbalance in market maker activity for at least one of the symbols.

165. (Currently Amended) The program according to claim 164, further comprising code that displays at least one of the count of bids having the inside bid price ~~and~~ or the count of the inside ask price in at least one of a table or a chart for each corresponding symbol.

166. (Original) The program according to claim 165, further comprising code that dynamically sorts the at least one of the table or the chart based on a parameter selected by the user to reflect current market activity.

167. (Original) The program according to claim 164, further comprising code that filters the data stream for each symbol based on traded volume.

168. (Original) The program according to claim 164, further comprising code that filters the data stream for each symbol based on traded price.

169. (Currently Amended) A program embodied in a tangible computer readable medium that is executed by a computing device to track activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, comprising:

code that receives a dynamically updated data stream containing level 1 and level 2 data relating to a plurality of securities traded over the at least one exchange, the level 1 data including at least the last trade price, inside bid and inside ask of each security and the level 2 data containing a bid price, a bid time, a bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask volume, an ask time, a security identifier and a market maker identifier for each ask; and

code that, for each symbol and market maker pair from a set of symbols and a set of market makers, analyzing each data item within the data stream and transforms the data to derive a statistic comprising counting ~~counts~~ at least one of:

a number of times the market maker is a first market maker to post an inside bid that is higher than an immediately preceding inside bid for the symbol, ~~and~~ or

a number of times the market maker is a first market maker to post an inside ask that is lower than an immediately preceding inside ask for the symbol,

wherein the derived statistic is indicative of a temporary imbalance in market maker activity for at least one of the symbols.

170. (Currently Amended) The program according to claim 169, further comprising code that, for each symbol and market maker pair, counts at least one of:

a number of times that a bid having an inside bid price is placed,
~~and~~ or

a number of times that an ask having an inside ask price is placed.

171. (Currently Amended) The program according to claim 169, further comprising code that, for each symbol and market maker pair, counts at least one of:

a number of times the market maker is a last market maker to leave an inside bid price for the symbol other than by market movement to a higher inside bid price, ~~and~~ or

a number of times the market maker is a last market maker to leave an inside ask price for the symbol other than by market movement to a lower inside ask price.

172. (Currently Amended) The program according to claim 171, further comprising code that, for each symbol and market maker pair, totals at least one of:

the counted number of times the market maker is the first market maker to post an inside bid that is higher than an immediately preceding inside bid and the counted number of times the market maker is the last market maker to leave an inside bid price, ~~and~~ or

the counted number of times the market maker is the first market maker to post an inside ask that is lower than an immediately preceding inside ask and the counted number of times the market maker is the last market maker to leave an inside ask price.

173. (Original) The program according to claim 169, further comprising code that displays at least one of the counts in at least one of a table or a chart for each corresponding symbol and market maker pair.

174. (Original) The program according to claim 173, further comprising code that dynamically sorts the at least one of the table or the chart based on a parameter selected by the user to reflect current market activity.

175. (Original) The program according to claim 169, further comprising code that filters the data stream for each symbol based on traded volume.

176. (Original) The program according to claim 169, further comprising code that filters the data stream for each symbol based on traded price.

177. (Withdrawn) A program embodied in computer readable medium to track activity of a plurality of market makers relating to securities traded on at least one common exchange where the market makers place bids and asks, comprising:

code that receives a dynamically updated data stream containing level 1 and level 2 data relating to a plurality of securities traded over the at least one exchange, the level 1 data including at least the last trade price of each security and the level 2 data containing a bid price, a bid time, a bid volume, a security identifier, and a market maker identifier for each bid, and an ask price, an ask volume, an ask time, a security identifier and a market maker identifier for each ask; and

code that, for each symbol and market maker pair from a set of symbols and a set of market makers, generates at least one of a bid persistence statistic by approximating a percentage of a predetermined number trades for which the market maker had an inside bid price, and an ask persistence statistic by approximating a percentage of a predetermined number of trades for which the market maker has an inside ask price.

178. (Withdrawn) The program according to claim 177, further comprising code that displays at least one of the bid persistence statistic and the ask persistence statistic in at least one of a table or a chart for each corresponding symbol and market maker pair.

179. (Withdrawn) The program according to claim 178, further comprising code that dynamically sorts the at least one of the table or the chart based on a parameter selected by the user to reflect current market activity.

180. (Withdrawn) The program according to claim 177, further comprising code that filters the data stream for each symbol based on traded volume.

181. (Withdrawn) The program according to claim 177, further comprising code that filters the data stream for each symbol based on traded price.

182. (Withdrawn) The program according to claim 177, wherein the code that calculates the bid persistence statistic and the ask persistence statistic includes code that:

assigns a value of one to each order at the inside market, otherwise assigning a value of zero to the order; and

separately solves the equation:

$$\left(\Sigma VAL_p + \frac{CV - \Sigma VAL_p}{m} \right)$$

for bid orders and ask orders, wherein m is the predetermined number of trades, CV is the current value assigned to the order and ΣVAL_p is the prior sum of all values calculated according to the equation one trade earlier.

183. (Withdrawn) The program according to claim 182, wherein the code that calculates the bid persistence statistic and the ask persistence statistic includes code

that multiplies the respective bid order and ask order results of the equation by one hundred to arrive at respective representations of exponential averages.

184. (Withdrawn) The program according to claim 177, wherein the bid persistence statistic and the ask persistence statistic are respectively calculated as one of a simple moving average, an exponential moving average, a weighted moving average, a linear regression, or mathematical averaging technique.